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10/591,807

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Etienne Chapelain

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EXAMINER

YABUT, DANIEL D

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,807	Applicant(s) CHAPELAIN ET AL.	
	Examiner DANIEL YABUT	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 10, 18 and 19** are rejected under 35 U.S.C. 102(b) as being anticipated European Patent, EP 1199243 A1.

EP 1199243 A1 discloses a steering wheel arrangement (Fig. 5) comprising a(n):

Re claim 1

- Fixed element (at 127) carrying a first annular bearing (at 141), the annular bearing supporting a steering wheel (at 109) for rotation relative to the fixed element
- Fixed element also carrying a second bearing (at 140), the second bearing rotatably supporting a component to be connected to part of the steering column of a vehicle (105)
- Bearings are both being retained to the fixed element by means of a first resilient retaining element (at 114, near 118, 116), the first bearing being retained to the steering wheel by a second resilient retaining element (near 126).

Re claim 10

- Center of rotation of the steering wheel is offset from the center of rotation of the steering column (at 124, 115).

Re claim 18

- Fixed element (at 127) carrying a first annular bearing (at 141) and a second annular bearing (at 140)
- First bearing supports a steering wheel for rotation relative to the fixed element (near 141) and the second bearing supports a steering column (near 140) for rotation relative to the fixed element, wherein the center of rotation of the steering wheel is offset from the center of rotation of the steering column (at 124, 115)

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- First resilient retaining element (at 114) having a first section (section spanning from 126 to near 141 that would extend out of the page in Figure 5) and a second section (section spanning from 126 to near 141 that would extend into the page in Figure 5), wherein the first section overlies a portion of the first and second bearings for retaining to the fixed element and the second section overlies a portion of the first and second bearings for retaining to the fixed element
- Second resilient retaining element (near 126) for retaining the first bearing to the steering wheel.

Re claim 19

- First and second bearings are coplanar (near 141, 140)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 1, 8, 11, 16, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Battermann et al., US Patent 6,264,235 in view of Konig, German Patent DE3940391 C.

Battermann et al. discloses a steering wheel arrangement (Fig. 1) comprising a(n):

Re claim 1

- Fixed element (1, 2) carrying a first annular bearing (12), the annular bearing supporting a steering wheel (Fig. 2) for rotation relative to the fixed element
- Component (at C) to be connected to part of the steering column of a vehicle (C1 / L49-53)
- Bearing are being retained to the fixed element by means of a first resilient retaining element (11), the first bearing being retained to the steering wheel by a second resilient retaining element (E; Fig. Y below)

However, as to **claim 1**, Battermann et al. does **not** expressly disclose a second bearing supporting the component to be connected to part of the steering wheel column and being retained to the fixed element by means of the first resilient retaining element.

Konig teaches the use of a second bearing (20) supporting a component (at 9) to be connected to the component to be connected to part of the steering wheel column and being retained to a fixed element (16) by means of a first resilient retaining element (5) for the purpose of providing adequate rotational support to the component of the steering column (see abstract), thus promoting the reliability of the product.

Regarding **claim 1**, it would have been obvious to one having ordinary skill in the art to provide a second bearing supporting a component to be connected to part of the steering wheel column and being retained to a fixed element (at D) by means of the first resilient retaining element, as taught by Konig, in the device of Batterman et al. for the purpose of providing adequate rotational support to the component of the steering column, thus promoting the reliability of the product.

Batterman et al. as modified above further discloses the following:

Re claim 8

- First section overlying a portion of the first and second bearings for retaining the first and second bearings to the fixed element (section spanning from H to near 2 that would extend out of the page in Figure Y).
- Second section interconnected with the first section and overlying a portion of the first and second bearings for retaining the first and second bearings to the fixed element (section spanning from H to near 2 that would extend into the page in Figure Y).

Re claim 11

- Fixed element (1, 2) carrying a first annular bearing (12) and a second annular bearing (20; Konig)
- First bearing supporting a steering wheel for rotation relative to the fixed element (see first bearing supporting steering wheel for rotation relative to the fixed element in Fig. 2) and the

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second bearing supports a steering column for rotation relative to the fixed element (see second bearing supporting steering column in Fig. 1 of Konig)

- First resilient retaining element having a first section (section spanning from H to near 2 that would extend out of the page in Figure Y) and a second section (section spanning from H to near 2 that would extend into the page in Figure Y)., wherein the first section overlies a portion of the first and second bearings for retaining to the fixed element and the second section overlies a portion of the first and second bearings for retaining to the fixed element
- Second resilient retaining element (E; Fig. Y below) for retaining the first bearing to the steering wheel.

Re claim 16

- First and second bearings are coplanar (Fig. 1; Konig)

Re claim 17

- Second bearing is mounted within the bounds of the first bearing (near D in Konig; at 20' in Konig)

5. **Claims 2-5, 9, 12, and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Battermann et al., US Patent 6,264,235 in view of Konig, German Patent DE3940391 C, as applied to claims 1, 8, 11, 16, and 17 above, and in further view of French Patent FR 2384157 A.

Battermann et al. as modified above discloses all the claim limitations, see above, further including a(n):

Re claim 2

- Fixed element (1, 2) having a housing part with an upper surface (A; Fig. Y below), the upper surface having at least two levels (at A, B; Fig. Y)
- Outer periphery of the upper surface defining a wall (at B; Fig. Y)
- First bearing being (12) mounted to that wall
- Upper surface defining an opening (at C) having a side wall (at D), the second bearing being mounted to that side wall

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- First retaining element comprises a plate (11) which lies over the upper surface, the plate having a part which is in contact with part of the first bearing (near 12) and with part of the second bearing (near D).

However, as to claim 2, Battermann et al. does **not** expressly disclose the plate having a part which is resiliently biased into contact.

FR2384157A teaches the use of a plate (7, 12) having a part (7) which is resiliently biased into contact with a bearing (2) for the purpose of providing sufficient elasticity to take up relatively large machining tolerances (see abstract).

Regarding claim 2, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide the plate having a part which is resiliently biased into contact, as taught by FR2384157A, in the device of Battermann et al. for the purpose of providing sufficient elasticity to take up relatively large machining tolerances, thus promoting the reliability of the device.

Battermann et al. as modified above further discloses the following:

Re claim 3

- Plate having two arcuate sections (at 22 and F; Fig. Y) located to either side of an aperture (near C)
- Arcuate section being provided with retaining studs (near A; Fig. Y) to secure the plate to the fixed element
- Other arcuate section being resiliently connected (see above) to the first arcuate section and engaging both the first bearing (12) and the second bearing (at F; 20, Konig).

Re claim 4

- First arcuate section engages both the first bearing and the second bearing (at F).

Re claim 5

- Arcuate sections are interconnected by two relatively narrow interconnecting bridges (G, H; Fig. Y).

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Re claim 9

- First and second sections of the first retaining element are resiliently biased into contact with the first and second bearings at an undersurface of the first retaining element (FR2384157A)

Re claim 12

- Fixed element further comprises an upper surface having at least two levels of differing height (at A, B; Fig. Y)
- Outer periphery defining a wall, wherein the first bearing is mounted to the wall (at B; Fig. Y)
- Opening in the upper surface, wherein the second bearing is mounted to the opening (near D in Konig; at 20' in Konig)

Re claim 13

- First and second sections of the first retaining element are resiliently biased into contact with the first and second bearings at an undersurface of the first retaining element (FR2384157A).

6. **Claims 6, 7, 14 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Battermann et al., US Patent 6,264,235 in view of Konig, German Patent DE3940391 C, as applied to claims 1, 8, 11, 16, and 17 above, and further in view of Bair et al., US Patent 5,044,785.

Battermann et al. as modified above discloses all the claim limitations, see above, further including a(n):

Re claim 6

- Second retaining element is of annular form (near E), the element engages the first bearing on which the steering wheel is mounted (at E), the second retaining element being secured to part of the steering wheel (at 3, 14)

However, as to **claim 6**, Battermann et al. as modified above does **not** expressly disclose the second retaining element carrying a plurality of radially inwardly directed resilient lugs.

Bair et al. teaches the use of a retaining element (130) carrying a plurality of radially inwardly directed resilient lugs (146) for the purpose of dampening vibration (C5 / L31-35), thus reducing undesirable noise or movement.

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Regarding claim 6, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide the second retaining element carrying a plurality of radially inwardly directed resilient lugs, as taught by Bair et al., in the device of Battermann et al. as modified above for the purpose of dampening vibration (C5 / L31-35), thus reducing undesirable noise or movement.

Battermann et al. as modified above further discloses the following:

Re claim 7

- Second retaining element is provided with a plurality of fixing studs (14) the fixing studs passing through corresponding apertures (at 3, 14) formed in part of the steering wheel.

Re claim 14

- Second retaining element is secured to the steering wheel (Fig. 2)

Re claim 15

- Plurality of fixing studs, the fixing studs passing through corresponding apertures formed in part of the steering wheel.

7. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent, EP 1199243 A1 in view of French Patent FR 2384157 A.

EP 1199243 A1 discloses all the claim limitations, see above, however, as to **claim 20**, EP 1199243 A1 does **not** expressly disclose the first and second sections of the first retaining element being resiliently biased into contact with the first and second bearings at an undersurface of the first retaining element.

FR2384157A teaches the use of a retaining element (7, 12) having a part (7) which is resiliently biased into contact with a bearing (2) for the purpose of providing sufficient elasticity to take up relatively large machining tolerances (see abstract).

Regarding **claim 20**, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide the first and second sections of the first retaining element being resiliently biased into contact with the first and second bearings at an undersurface of the first retaining element., as taught by FR2384157A, in the device of Battermann et al. for the purpose of providing sufficient elasticity to take up relatively large machining tolerances, thus promoting the reliability of the device.



Regarding Applicant's argument that the first resilient retaining element does not retain both bearings (14 and 20') because it does not engage both bearings, the term "retain" is sufficiently broad and

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does not require that the first resilient retaining element *engaging* both bearings, but rather requires a general function to hold corresponding elements in place. A person of ordinary skill in the art would recognize that element 5 indeed acts as a support the bearings 20' and 14 so as to prevent them from moving radially.

In response to applicant's argument that there is no motivation to include a second bearing in the Battermann system, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL YABUT whose telephone number is (571)270-5526. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard W. Ridley can be reached on (571)272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL YABUT/
Examiner, Art Unit 3656
8/06/2009

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656